

DİZ EKLEMİNİN NEOPLASTİK HASTALIKLARI



Büşra YILMAZ¹

GİRİŞ

Neoplazinin gerçek anlamı 'yeni büyümeye'dir. Neo: yeni; plasm: oluşum, gelişme, büyümeye anlamındadır. Herhangi bir sınırlama göstermeden konak canlıının kontrol mekanizmaları dışında hareket eden, kontrollsüz hücre çoğalmasıyla ilerleyen anormal doku kitlesi dir. Bugün tip dilinde yaygın kullanılan neoplastik hastalıklar malign ve benign tümörler olarak ikiye ayrılabilir. Alt ekstremité kemik ve yumuşak doku tümörlerinin sık yerlesiği vücut bölgelerinden biridir. En sık da diz eklemi çevresinde saptanmaktadır (1).

Kemik ve kemik dışı bağ dokunun kötü huylu neoplazmları sarkom olarak adlandırılır. Bu malign tümörler benign tümörlerden daha nadir görülmektedir. Benign tümörler sıklıkla semptomsuz olduğundan çoğunlukla tesadüfen tespit edilirler bu nedenle sıklığı net olarak bilinmemektedir. Kemiğin kötü huylu tümörleri ise tüm malign tümörlerin %1'i kadardır (2, 3).

Benign neoplazmlar olarak osteoid osteoma, osteokondrom, enkondrom, kondroblastom, kondromiksoid fibrom, liposklerozan miksofibroid tümör, dev hücreli kemik tümörü, lipom en sık görülenlerdir. Osteosarkom, kondrosarkom ve Ewing sarkom en sık görülen primer malign tümörlerdir. Adamantimoma ise kemik olarak tibiaya özgü yerleşimi sebebiyle akla gelmelidir. Alt ekstremitede özellikle de diz çevresinde tümör benzeri lezyonlar da akılda

¹ Uzm. Dr., Şanlıurfa Mehmet Akif İnan Eğitim ve Araştırma Hastanesi, Fiziksel Tıp ve Rehabilitasyon, drbusrayildiz91@gmail.com

periferik ve septal parlaklışma vardır. Evre 1 kondrosarkom enkondromla karışabilir. Kortikal kalınlığın fazla olması, lezyon boyutunun $>5\text{cm}$ olması, dokunun içinde yağ lobüllerinin olmaması evre 1 kondrosarkom lehinedir (41, 42).

Liposarkom

50-70 yaş aralığında görülen yumuşak doku sarkomudur. Alt ekstremite, retroperitoneal bölge, inguinal alan en çok yerleşim bölgesidir (43).

Sinoviyal Sarkom

En sık genç erişkinlerde, alt ekstremitede görülen yumuşak doku sarkomudur. En çok popliteal alanda görülür (44).

KAYNAKLAR

1. Arkun R. Alt Ekstremite Tümörleri. Türk Radyoloji Seminerleri. 2016;4:516-39.
2. Siegel RL, Miller KD, Jemal A. Cancer statistics, 2015. CA: a cancer journal for clinicians. 2015;65(1):5-29.
3. Mirabello L, Troisi RJ, Savage SA. Osteosarcoma incidence and survival rates from 1973 to 2004: data from the Surveillance, Epidemiology, and End Results Program. Cancer. 2009;115(7):1531-43.
4. Kim EE. Imaging of Bone Tumors and Tumor-Like Lesions: Techniques and Applications. Journal of Nuclear Medicine. 2010;51(8):1328-.
5. Şenol Bekmez MA. Common features of malignant bone tumors. TOTBİD Dergisi. 2014;13:206-11.
6. Grimer RJ, Briggs TW. Earlier diagnosis of bone and soft-tissue tumours. The Journal of bone and joint surgery British volume. 2010;92(11):1489-92.
7. Gorlick R, Khanna C. Osteosarcoma. Journal of bone and mineral research : the official journal of the American Society for Bone and Mineral Research. 2010;25(4):683-91.
8. Widhe B, Widhe T. Initial symptoms and clinical features in osteosarcoma and Ewing sarcoma. The Journal of bone and joint surgery American volume. 2000;82(5):667-74.
9. Kaya T. Kemik ve Yumuşak Doku Tümörlerinin Değerlendirilmesinde Temel Radyografik İlkeler. Türk Radyoloji Seminerleri. 2017;5:56-69.
10. Resnick D, Kransdorf MJ. Bone and Joint Imaging: Elsevier Saunders; 2005.
11. Jurik AG. Burgener F.A., Kormano M.: Bone and joint disorders. Conventional radiologic differential diagnosis. European radiology. 1997;7(5):648.

12. Kaya T. Kas iskelet - yumuşak doku radyolojisi. Nobel & Güneş Kitabevi. 2008.
13. Errani C, Kreshak J, Ruggieri P, Alberghini M, Picci P, Vanel D. Imaging of bone tumors for the musculoskeletal oncologic surgeon. European Journal of Radiology. 2013;82(12):2083-91.
14. Rimondi E, Rossi G, Bartalena T, Ciminari R, Alberghini M, Ruggieri P, et al. Percutaneous CT-guided biopsy of the musculoskeletal system: results of 2027 cases. Eur J Radiol. 2011;77(1):34-42.
15. Umans H. MRI of the Musculoskeletal System. 4th ed. The Journal of Bone and Joint Surgery-American Volume. 2002;84:334.
16. Iyer RS, Chapman T, Chew FS. Pediatric bone imaging: diagnostic imaging of osteoid osteoma. AJR American journal of roentgenology. 2012;198(5):1039-52.
17. Chai JW, Hong SH, Choi JY, Koh YH, Lee JW, Choi JA, et al. Radiologic diagnosis of osteoid osteoma: from simple to challenging findings. Radiographics : a review publication of the Radiological Society of North America, Inc. 2010; 30(3):737-49.
18. Murphey MD, Choi JJ, Kransdorf MJ, Flemming DJ, Gannon FH. Imaging of osteochondroma: variants and complications with radiologic-pathologic correlation. Radiographics : a review publication of the Radiological Society of North America, Inc. 2000;20(5):1407-34.
19. Douis H, Saifuddin A. The imaging of cartilaginous bone tumours. I. Benign lesions. Skeletal radiology. 2012;41(10):1195-212.
20. Marco RA, Gitelis S, Brebach GT, Healey JH. Cartilage tumors: evaluation and treatment. The Journal of the American Academy of Orthopaedic Surgeons. 2000;8(5):292-304.
21. Turcotte RE. Giant cell tumor of bone. Orthop Clin North Am. 2006;37(1):35-51.
22. Rao UN, Goodman M, Chung WW, Swalski P, Pal R, Finkelstein S. Molecular analysis of primary and recurrent giant cell tumors of bone. Cancer genetics and cytogenetics. 2005;158(2):126-36.
23. Chakarun CJ, Forrester DM, Gottsegen CJ, Patel DB, White EA, Matcuk GR, Jr. Giant cell tumor of bone: review, mimics, and new developments in treatment. Radiographics : a review publication of the Radiological Society of North America, Inc. 2013;33(1):197-211.
24. Stacy GS, Peabody TD, Dixon LB. Mimics on radiography of giant cell tumor of bone. AJR American journal of roentgenology. 2003;181(6):1583-9.
25. Kashiwagi N, Hirabuki N, Andou K, Yoshifumi N, Tanaka H, Morino H, et al. MRI and CT findings of the giant cell tumors of the skull; five cases and a review of the literature. Eur J Radiol. 2006;58(3):435-43.
26. Mascard E, Gomez-Brouchet A, Lambot K. Bone cysts: unicameral and aneurysmal bone cyst. Orthopaedics & traumatology, surgery & research : OTSR. 2015;101(1)119-27.
27. Olvi LG, Lembo GM, Velan O, Santini-Araujo E. Simple Bone Cyst. In: SantiAraujo E, Kalil RK, Bertoni F, Park Y-K, editors. Tumors and Tumor-Like Lesions of Bone:

- For Surgical Pathologists, Orthopedic Surgeons and Radiologists. London: Springer London; 2015. p. 611-33.
- 28. Remotti F, Feldman F. Nonneoplastic lesions that simulate primary tumors of bone. *Archives of pathology & laboratory medicine*. 2012;136(7):772-88.
 - 29. Spina V, Montanari N, Romagnoli R. Malignant tumors of the osteogenic matrix. *Eur J Radiol*. 1998;27 Suppl 1:S98-109.
 - 30. Suresh S, Saifuddin A. Radiological appearances of appendicular osteosarcoma: a comprehensive pictorial review. *Clinical radiology*. 2007;62(4):314-23.
 - 31. Fuchs B, Pritchard DJ. Etiology of osteosarcoma. *Clinical orthopaedics and related research*. 2002(397):40-52.
 - 32. Saifuddin A. The accuracy of imaging in the local staging of appendicular osteosarcoma. *Skeletal radiology*. 2002;31(4):191-201.
 - 33. Hoffer FA, Nikanorov AY, Reddick WE, Bodner SM, Xiong X, Jones-Wallace D, et al. Accuracy of MR imaging for detecting epiphyseal extension of osteosarcoma. *Pediatric radiology*. 2000;30(5):289-98.
 - 34. Jedlicka P. Ewing Sarcoma, an enigmatic malignancy of likely progenitor cell origin, driven by transcription factor oncogenic fusions. *International journal of clinical and experimental pathology*. 2010;3(4):338-47.
 - 35. Potikyan G, France KA, Carlson MR, Dong J, Nelson SF, Denny CT. Genetically defined EWS/FLI1 model system suggests mesenchymal origin of Ewing's family tumors. *Laboratory investigation; a journal of technical methods and pathology*. 2008;88(12):1291-302.
 - 36. Van den Berg H. Biology and therapy of malignant solid tumors in childhood. *Cancer chemotherapy and biological response modifiers*. 2003;21:683-707.
 - 37. Peersman B, Vanhoenacker FM, Heyman S, Van Herendael B, Stam M, Brys P, et al. Ewing's sarcoma: imaging features. *JBR-BTR : organe de la Societe royale belge de radiologie (SRBR) = orgaan van de Koninklijke Belgische Vereniging voor Radiologie (KBVR)*. 2007;90(5):368-76.
 - 38. Henninger B, Glodny B, Rudisch A, Trieb T, Loizides A, Putzer D, et al. Ewing sarcoma versus osteomyelitis: differential diagnosis with magnetic resonance imaging. *Skeletal radiology*. 2013;42(8):1097-104.
 - 39. Van Oosterwijk JG, Anninga JK, Gelderblom H, Cleton-Jansen AM, Bovée JV. Update on targets and novel treatment options for high-grade osteosarcoma and chondrosarcoma. *Hematology/oncology clinics of North America*. 2013; 27(5):1021-48.
 - 40. Hogendoorn P, Bovee J, Nielsen GP. Chondrosarcoma (grades I-III), including primary and secondary variants and periosteal chondrosarcoma. *World Health Classification of Tumours*. 2013:264-8.
 - 41. Murphey MD, Walker EA, Wilson AJ, Kransdorf MJ, Temple HT, Gannon FH. From the archives of the AFIP: imaging of primary chondrosarcoma: radiologic-pathologic correlation. *Radiographics : a review publication of the Radiological Society of North America, Inc.* 2003;23(5):1245-78.

42. Douis H, Saifuddin A. The imaging of cartilaginous bone tumours. II. Chondrosarcoma. *Skeletal radiology*. 2013;42(5):611-26.
43. O'Regan KN, Jagannathan J, Krajewski K, Zukotynski K, Souza F, Wagner AJ, et al. Imaging of Liposarcoma: Classification, Patterns of Tumor Recurrence, and Response to Treatment. *American Journal of Roentgenology*. 2011;197(1):37-W43.
44. Bakri A, Shinagare AB, Krajewski KM, Howard SA, Jagannathan JP, Hornick JL, et al. Synovial sarcoma: imaging features of common and uncommon primary sites, metastatic patterns, and treatment response. *AJR American journal of roentgenology*. 2012;199(2):208-15.